Author Index

ABBOTT, R. J. (see GLOVER, B. J.), 147
ALANEN, E. (see KOTTKE, I.), 411
ARROYO, J. & DAFNI, A., Variations in habitat, season, flower traits and pollinators in dimorphic *Narcissus tazetta* L. (Amaryllidaceae) in Israel, 135
ASP, H. (see ROSENGREN-BRINCK, U.), 537
AYRES, P. G. (see DE NOOIJ, M. P.), 117
BALAGUER, L., BARNES, J D., PANICUCCI, A. & BORLAND, A. M., Production and utilization of assimilates in wheat (*Triticum aestivum* L.) leaves exposed to elevated O_3 and/or CO_2, 557
BARNES, J D. (see BALAGUER, L.), 557
BECKETT, R. P. (see WELLS, J. M.), 477
BERBARA, R. L. L., MORRIS, B. M., FONSECA, H. M. A. C., REID, B., GOW, N. A. R. & DAFT, M. J., Electrical currents associated with arbuscular mycorrhizal interactions, 433
BODDY, L. (see WELLS, J. M.), 289, 467
BORLAND, A. M. (see BALAGUER, L.), 557
BOUDET, A. M., LAPIERRE, C. & GRIMA-PETTENATI, J., Tansley Review No. 80. Biochemistry and molecular biology of lignification, 203
BRAUN, S. & FLÜCKIGER, W., Effects of ambient ozone on seedlings of *Fagus sylvatica* L. and *Picea abies* (L.) Karst, 33
BRETAGNOLLE, F. & THOMPSON, J. D., Tansley Review No. 78. Gametes with the somatic chromosome number: mechanisms of their formation and role in the evolution of autopolyploid plants, 1
BROWN, D. H. (see WELLS, J. M.), 477
BRUN, A., CHALOT, M., FINLAY, R. D. & SÖDERSTRÖM, B., Structure and function of the ectomycorrhizal association between *Paxillus involutus* (Batsch) Fr. and *Betula pendula* Roth. I. Dynamics of mycorrhiza formation, 487
BRUNE, A., URBACH, W. & DIETZ, K.-J., Differential toxicity of heavy metals is partly related to a loss of preferential extraplasmic compartmentation: a comparison of Cd-, Mo-, Ni- and Zn-stress, 403
BRUNNER, I. & SCHEIDEGGER, C., Effects of high nitrogen concentrations on ectomycorrhizal structure and growth of seedlings of *Picea abies* (L.) Karst., 83
CAIRNS, A. J., HOWARTH, C. J. & POLLOCK, C. J., Submerged batch culture of the psychrophile *Monographella nivalis* in a defined medium; growth, carbohydrate utilization and responses to temperature, 299
CAPORN, S. J. M., SONG, W., READ, D. J. & LEE, J. A., The effect of repeated nitrogen fertilization on mycorrhizal infection in heather [*Calluna vulgaris* (L.) Hull], 605
CASADORO, G. (see ZANCHIN, A.), 345
CASTELLANO, M. (see HIBBS, D. E.), 569
CEULEMANS, R. & MOUSSEAU, M., Erratum, 535
CHALOT, M. (see BRUN, A.), 487
CHAN, S. S. (see HIBBS, D. E.), 569
CHAREST, C. (see PARADIS, R.), 637
——, (see SUBRAMANIAN, K. S.), 643
CURTIS, P. S., VOGEL, C. S., PREGITZER, K. S., ZAK, D. R. & TEERT, J. A., Interacting effects of soil fertility and atmospheric CO_2 on leaf area growth and carbon gain physiology in *Populus x euramericana* (Dode) Guinier, 253
——, (see PREGITZER, K. S.), 579
DAFNI, A. (see ARROYO, J.), 135
DAFT, M. J. (see BERBARA, R. L. L.), 433
DALPÉ, Y. (see PARADIS, R.), 637
DAVELOS, A. L. (see JAROSZ, A. M.), 371
DAVISON, A. W. (see WILBOURN, S.), 23
——, (see REILING, K.), 587
DEN NIJS, J. C. M. (see PETANIDOU, T.), 155
DE NOOIJ, M. P., PAUL, N. D. & AYRES, P. G., Variation in susceptibility and tolerance within and between populations of *Tussilago farfara* L. infected by *Coleosporium tussilaginis* (Pers.) Berk., 117
DE ROOIJ-VAN DER GOES, P. C. E. M., The role of plant-parasitic nematodes and soil-borne fungi in the decline of *Ammophila arenaria* (L.) Link, 661
DIETZ, K.-J. (see BRUNE, A.), 403
DIGHTON, J. (see GRAY, S. N.), 449
DIXON, M., LE THIEC, D. & GARREC, J. P., The growth and gas exchange response of soil-planted Norway spruce (*Picea abies* L. Karst.) and red oak (*Quercus rubra* L.) exposed to elevated CO_2 and to naturally occurring drought, 265
DUCKETT, J. G. & READ, D. J., Ericoid mycorrhizas and rhizoid-ascomycete associations in liverworts share the same mycobiont: isolation of the partners and resynthesis of the associations *in vitro*, 439
DWYER, L. M. (see SUBRAMANIAN, K. S.), 643
ELLIS-ADAM, A. C. (see PETANIDOU, T.), 155
EVANS, R. (see WELLS, J. M.), 467
FELLE, H. H. (see HERRMANN, A.), 523
FINLAY, R. D. (see BRUN, A.), 487
FITTER, A. (see MERRYWEATHER, J.), 619, 629
FLÜCKIGER, W. (see BRAUN, S.), 33
FONSECA, H. M. A. C. (see BERBARA, R. L. L.), 433
GANTAR, M., KERBY, N. W., ROWELL, P., OBREHT, Z. & SCRIMGEOUR, C., Colonization of wheat (*Triticum vulgare* L.) by N_2-fixing cyanobacteria: IV. Dark nitrogenase activity and effects of cyanobacteria on natural ^{15}N abundance in the plants, 337
GARCIA-ROMERA, I. (see MCALLISTER, C. B.), 309
GARREC, J. P. (see DIXON, M.), 265
GAVARA, R. (see LUQUE, P.), 283
GIANINAZZI-PEARSON, V. (see LEMOINE, M. C.), 97
GLOVER, B. J. & ABBOTT, R. J., Low genetic diversity in the Scottish endemic *Primula scotica* Hook., 147
GODEAS, A. (see MCALLISTER, C. B.), 309
GOLLOTTE, A. (see LEMOINE, M. C.), 97
GORISSEN, A. (see SMEULDERS, S. M.), 45
——, KUIKMAN, P. J., VAN DE BEEK, H., Carbon allocation and water use in juvenile Douglas fir under elevated CO_2, 275
GOW, N. A. R. (see BERBARA, R. L. L.), 433
GRAY, S. N., DIGHTON, J., OLSSON, S. & JENNINGS, D. H., Real-time measurement of uptake and translocation of ^{137}Cs within mycelium of *Schizophyllum commune* Fr. by autoradiography followed by quantitative image analysis, 449
GRIFFIN, K. L., WINNER, W. E. & STRAIN, B. R., Growth and dry matter partitioning in loblolly and ponderosa pine seedlings in response to carbon and nitrogen availability, 547
GRIMA-PETTENATI, J. (see BOUDET, A. M.), 203
GUTTENBERGER, M. (see STAEFFER, C.), 417
HAMILTON, R. I. (see SUBRAMANIAN, K. S.), 643
HAMPP, R. (see STAEFFER, C.), 417
HANSON, P. J. (see TSCHAPLINSKI, T. J.), 63
HELLER, L. I., SHAW, A. J. & JACOBSON, J. S., Exposure of red spruce seedlings to acid mist: importance of droplet composition just prior to drying periods, 55
HEREDIA, A. (see LUQUE, P.), 283
HERRE, E. A. (see PATIÑO, S.), 125
HERRMANN, A. & FELLE, H. H., Tip growth in root hair cells of *Sinapis alba* L.: significance of internal and external Ca^{2+} and pH, 523
HIBBS, D. E., CHAN, S. S., CASTELLANO, M. & NIU, C.-H., Response of red alder seedlings to CO_2 enrichment and water stress, 569
HOLOPAINEN, T. (see KOTTKE, I.), 411
——, (see PÄÄKKÖNEN, E.), 595
HÖRTENSTEINER, S., VICENTINI, F. & MATILE, P., Chlorophyll breakdown in senescent cotyledons of rape, *Brassica napus* L.: Enzymatic cleavage of phaeophorbide *a in vitro*, 237
——, (see VICENTINI, F.), 247
HOWARTH, C. J. (see CAIRNS, A. J.), 299
JACOBSON, J. S. (see HELLER, L. I.), 55
JAKOBSEN, I. (see RAVNSKOV, S.), 611
JAROSZ, A. M. & DAVELOS, A. L., Tansley Review No. 81. Effects of disease in wild plant populations and the evolution of pathogen aggressiveness, 371
JENNINGS, D. H. (see GRAY, S. N.), 449

JOOSTEN, N. N. (see SMEULDERS, S. M.), 45
KEMBALL, W. D. & MARSHALL, C., Clonal integration between parent and branch stolons in white clover: a developmental study, 513
KERBY, N. W. (see GANTAR, M.), 337
KERSTIENS, G., Cuticular water permeance of European trees and shrubs grown in polluted and unpolluted atmospheres, and its relation to stomatal response to humidity in beech (*Fagus sylvatica* L.), 495
KIRK, G. J. D. (see SALEQUE, M. A.), 325
KOTTKE, I., HOLOPAINEN, T., ALANEN, E. & TURNAU, K., Deposition of nitrogen in vacuolar bodies of *Cenococcum geophilum* Fr. mycorrhizas as detected by electron energy loss spectroscopy, 411
KUBISKE, M. E. (see PREGITZER, K. S.), 579
KUIKMAN, P. J. (see GORISSEN, A.), 275
LAPIERRE, C. (see BOUDET, A. M.), 203
LEE, J. A. (see CAPORN, S. J. M.), 605
LEMOINE, M. C., GOLLOTTE, A. & GIANINAZZI-PEARSON, V., Localization of β(1-3) glucan in walls of the endomycorrhizal fungi *Glomus mosseae* (Nicol. & Gerd.) Gerd. & Trappe and *Acaulospora laevis* Gerd. & Trappe during colonization of host roots, 97
LE THIEC, D. (see DIXON, M.), 265
LUQUE, P., GAVARA, R. & HEREDIA, A., A study of the hydration process of isolated cuticular membranes, 283
MCALLISTER, C. B., GARCIA-ROMERA, I., MARTIN, J., GODEAS, A. & OCAMPO, J. A., Interaction between *Aspergillus niger* van Tiegh. and *Glomus mosseae*. (Nicol. & Gerd.) Gerd. & Trappe, 309
MAJDI, H. (see ROSENGREN-BRINCK, U.), 537
MARCATO, C. (see ZANCHIN, A.), 345
MARSHALL, C. (see KEMBALL, W. D.), 513
MARTIN, J. (see MCALLISTER, C. B.), 309
MATILE, P. (see HÖRTENSTEINER, S.), 237
——, (see VICENTINI, F.), 247
MERRYWEATHER, J. & FITTER, A., Phosphorus and carbon budgets: mycorrhizal contribution in *Hyacinthoides non-scripta* (L.) Chouard ex Rothm. under natural conditions, 619
——, FITTER, A., Arbuscular mycorrhiza and phosphorus as controlling factors in the life history of *Hyacinthoides non-scripta* (L.) Chouard ex Rothm., 629
MOLINA, R. (see SMITH, J. E.), 73
MORRIS, B. M. (see BERBARA, R. L. L.), 433
MOUSSEAU, M. (see CEULEMANS, R.), 535
NAPIER, R. M. & VENIS, M. A., Tansley Review No. 79. Auxin action and auxin-binding proteins, 167
NIU, C.-H. (see HIBBS, D. E.), 569
NORBY, R. J. (see TSCHAPLINSKI, T. J.), 63
NOYD, R. K., PFLEGER, F. L. & RUSSELLE, M. P., Interactions between native prairie grasses and indigenous arbuscular mycorrhizal fungi: implications for reclamation of taconite iron ore tailing, 651
OBERWINKLER, F. (see SCHMID, E.), 317
OBREHT, Z. (see GANTAR, M.), 337
OCAMPO, J. A. (see MCALLISTER, C. B.), 309
OLLERENSHAW, J. H. (see WILBOURN, S.), 23
OLSSON, S. (see GRAY, S. N.), 449
OOSTERMEIJER, J. G. B. (see PETANIDOU, T.), 155
PÄÄKKÖNEN, E. & HOLOPAINEN, T., Influence of nitrogen supply on the response of clones of birch (*Betula pendula* Roth.) to ozone, 595
PANICUCCI, A. (see BALAGUER, L.), 557
PARADIS, R., DALPÉ, Y. & CHAREST, C., The combined effect of arbuscular mycorrhizas and short-term cold exposure on wheat, 637
PATIÑO, S., TYREE, M. T. & HERRE, E. A., Comparison of hydraulic architecture of woody plants of differing phylogeny and growth form with special reference to free-standing and hemi-epiphytic *Ficus* species from Panama, 125
PAUL, N. D. (see DE NOOIJ, M. P.), 117
PERRY, D. A. (see SMITH, J. E.), 73
PETANIDOU, T., DEN NIJS, J. C. M., OOSTERMEIJER, J. G. B. & ELLIS-ADAM, A. C., Pollination ecology and patch-dependent reproductive success of the rare perennial *Gentiana pneumonanthe* L., 155
PFEIFHOFER, H. W., Extraction of conifer waxes as the basic principle of Härtel's turbidity test, 505
PFLEGER, F. L. (see NOYD, R. K.), 651
PIHL KARLSSON, G., SELLDÉN, G., SKÄRBY, L. & PLEIJEL, H., Clover as an indicator plant for phytotoxic ozone concentrations: visible injury in relation to species, leaf age and exposure dynamics, 355
PLEIJEL, H. (see PIHL KARLSSON, G.), 355
POLLOCK, C. J. (see CAIRNS, A. J.), 299
PREGITZER, K. S. (see CURTIS, P. S.), 253
——, ZAK, D. R., CURTIS, P. S., KUBISKE, M. E., TEERI, J. A., VOGEL, C. S., Atmospheric CO_2, soil nitrogen and turnover of fine roots, 579
RASCIO, N. (see ZANCHIN, A.), 345
RAVNSKOV, S. & JAKOBSEN, I., Functional compatibility in arbuscular mycorrhizas measured as hyphal P transport to the plant, 611
READ, D. J. (see DUCKETT, J. G.), 439
——, (see CAPORN, S. J. M.), 605
REID, B. (see BERBARA, R. L. L.), 433
REILING, K. & DAVISON, A. W., Effects of ozone on stomatal conductance and photosynthesis in populations of *Plantago major* L., 587
ROSENGREN-BRINCK, U., MAJDI, H., ASP, H. & WIDELL, S., Enzyme activities in isolated root plasma membranes from a stand of Norway spruce in relation to nutrient status and ammonium sulphate application, 537
ROWELL, P. (see GANTAR, M.), 337
RUSSELLE, M. P. (see NOYD, R. K.), 651
SAITO, M., Enzyme activities of the internal hyphae and germinated spores of an arbuscular mycorrhizal fungus, *Gigaspora margarita* Becker & Hall, 425
SALEQUE, M. A. & KIRK, G. J. D., Root-induced solubilization of phosphate in the rhizosphere of lowland rice, 325
SCHEIDEGGER, C. (see BRUNNER, I.), 83
SCHELLENBERG, M. (see VICENTINI, F.), 247
SCHMID, E. & OBERWINKLER, F., A light- and electron-microscopic study on a vesicular–arbuscular host-fungus interaction in gametophytes and young sporophytes of the Gleicheniaceae (Filicales)., 317
SCRIMGEOUR, C. (see GANTAR, M.), 337
SELLDÉN, G. (see PIHL KARLSSON, G.), 355
SHAW, A. J. (see HELLER, L. I.), 55
SKÄRBY, L. (see PIHL KARLSSON, G.), 355
SMEULDERS, S. M., GORISSEN, A., JOOSTEN, N. N. & VAN VEEN, J. A., Effects of short-term ozone exposure on the carbon economy of mature and juvenile Douglas firs [*Pseudotsuga menziesii* (Mirb.) Franco], 45
SMITH, J. E., MOLINA, R. & PERRY, D. A., Occurrence of ectomycorrhizas on ericaceous and coniferous seedlings grown in soils from the Oregon Coast Range 73
SÖDERSTRÖM, B. (see BRUN, A.), 487
SONG, W. (see CAPORN, S. J. M.), 605
STAEFFER, C., WALLENDA, T., GUTTENBERGER, M. & HAMPP, R., Acid invertase in mycorrhizal and non-mycorrhizal roots of Norway spruce (*Picea abies* [L.] Karst.) seedlings, 417
STEWART, D. B. (see TSCHAPLINSKI, T. J.), 63
STRAIN, B. R. (see GRIFFIN, K. L.), 547
SUBRAMANIAN, K. S., CHAREST, C., DWYER, L. M. & HAMILTON, R. I., Arbuscular mycorrhizas and water relations in maize under drought stress at tasselling, 643
TEERI, J. A. (see PREGITZER, K. S.), 579
TEERT, J. A. (see CURTIS, P. S.), 253
THOMAS, H. (see VICENTINI, F.), 247
THOMPSON, J. D. (see BRETAGNOLLE, F.), 1
TRAINOTTI, L. (see ZANCHIN, A.), 345
TSCHAPLINSKI, T. J., STEWART, D. B., HANSON, P. J. & NORBY, R. J., Interactions between drought and elevated CO_2 on growth and gas exchange of seedlings of three deciduous tree species, 63
TURNAU, K. (see KOTTKE, I.), 411
TYREE, M. T. (see PATIÑO, S.), 125
URBACH, W. (see BRUNE, A.), 403
VAN DE BEEK, H. (see GORISSEN, A.), 275
VAN VEEN, J. A. (see SMEULDERS, S. M.), 45
VENIS, M. A. (see NAPIER, R. M.), 167
VICENTINI, F. (see HÖRTENSTEINER, S.), 237
——, HÖRTENSTEINER, S., SCHELLENBERG, M., THOMAS, H., MATILE, P., Chlorophyll breakdown in senescent leaves: identification of the biochemical lesion in a *stay-green* genotype of *Festuca pratensis* Huds., 247

VISSER, S., Ectomycorrhizal fungal succession in jack pine stands following wildfire, 389
VOGEL, C. S. (see CURTIS, P. S.), 253
——, (see PREGITZER, K. S.), 579
WALLENDA, T. (see STAEFFER, C.), 417
WELLS, J. M. & BODDY, L., Effect of temperature on wood decay and translocation of soil-derived phosphorus in mycelial cord systems, 289
——, BODDY, L., EVANS, R., Carbon translocation in mycelial cord systems of *Phanerochaete velutina* (DC.: Pers.) Parmasto, 467
——, BROWN, D. H., BECKETT, R. P., Kinetic analysis of Cd uptake in Cd-tolerant and intolerant populations of the moss *Rhytidiadelphus squarrosus* (Hedw.) Warnst and the lichen *Peltigera membranacea* (Ach.) Nyl., 477
WEST, H. M., Soil phosphate status modifies response of mycorrhizal and non-mycorrhizal *Senecio vulgaris* L. to infection by the rust, *Puccinia lagenophorae* Cooke, 107
WIDELL, S. (see ROSENGREN-BRINCK, U.), 537
WILBOURN, S., DAVISON, A. W. & OLLERENSHAW, J. H., The use of an unenclosed field fumigation system to determine the effects of elevated ozone on a grass–clover mixture, 23
WINNER, W. E. (see GRIFFIN, K. L.), 547
ZAK, D. R. (see CURTIS, P. S.), 253
——, (see PREGITZER, K. S.), 579
ZANCHIN, A., MARCATO, C., TRAINOTTI, L., CASADORO, G. & RASCIO, N., Characterization of abscission zones in the flowers and fruits of peach [*Prunus persica* (L.) Batsch], 345

Subject Index

Abscission, 345
Acer saccharum (sugar maple), 63
Acidic mist, 55
Aggressiveness, 371
Air pollutants, 495
Air pollution, 505
Al, 537
Alnus rubra, 569
Amanita muscaria, 417
Anatomy, 83
Apoplast, 403
Arbuscular mycorrhiza, 309, 425, 433, 619, 629, 637, 643
Arbuscular mycorrhizal fungi, 611, 651
Ascomycete, 439
Aspergillus niger, 309
Atmospheric CO_2, 579
Autoradiography, 449
Auxin, 167
Auxin-binding proteins, 167
Barley (*Hordeum vulgare*) leaf, 403
Basidiomycetes, 289, 467
Betula pendula (birch), 487, 595
Biofertilizers, 337
Bioindication, 505
Biomass, 33
Branch stolons, 513
Brassica napus, 237
Bumblebee, 155
Cadmium, 477
Calcium, 523
Calluna vulgaris, 605
Carbon, 467
Carbon allocation, 275, 579
Carbon dioxide, 253, 265
Carbon economy, 45
^{14}C-assimilate partitioning, 513
Cation–anion balance, 325
Cell wall, 97, 167, 203
Cellulase, 345
Cenococcum geophilum, 411, 417
Chlorophyll, 355
Chlorophyll breakdown, 247
Chlorophyllase, 247
Chloroplast (senescent), 237
Chlorosis, 33
Climate change, 569
Clonal integration, 513
Clones, 595
Clover, 355
CO_2, 547, 569
Coleosporium tussilaginis, 117
Commensalism, 371
Compartmentation, 403
Cryoprotectant, 299
Cuticle, 283
Cyanobacteria, 337
Douglas fir (*Pseudotsuga menziesii*), 45, 275
Drought, 63, 265, 643
Drying periods, 55
Dynamics of ectomycorrhiza formation, 487
Ecotypic differentiation, 135
Ectomycorrhiza, 73, 83, 417
Ectomycorrhizal fungi, 389
Electrical currents, 433
Electron energy loss spectroscopy, 411
Elevated carbon dioxide concentration, 495
Elevated CO_2, 63, 275, 557
Elevated O_3, 557
Elongation growth, 167
Endemic species, 147
Endomycorrhiza, 97
Endoparasitic nematodes, 661
Epicuticular wax, 505
Epidermis, 403
Ergosterol, 605
Ericaceae, 73
Ericoid mycorrhiza, 73, 439
Errata: *The New Phytologist* **127** (1995), 425–446, 535
Evolution, 587
Exposure dynamics, 355
Fagus sylvatica (beech), 33, 495
Festuca pratensis, 247
Ficus, 125
Field fumigation, 23
Fine roots, 537
Flower polymorphism, 135
Fluorescent chlorophyll catabolite, 237, 247
Foliar senescence, 237
$^{15}N/^{14}N$ fractionation, 337
Fructan, 299
Functional compatibility, 611
Fungal morphogenesis, 97
Fungal spore, 433
Fusarium, 661
2n gametes, 1
Gametophyte, 317
Gas exchange, 63, 253, 265
Gene activation, 167
Genetic engineering, 203
Gentiana pneumonanthe, 155
Gleicheniaceae, 317
Global warming, 579
Glomus mosseae, 309, 637
β(1-3) glucan, 97
Glucan synthase II, 537
Glucose-6-phosphate dehydrogenase, 425
Growth, 63, 595
Growth and metabolism, 637
Härtel's turbidity test, 505
H^+-ATPase, 537
Heat shock, 299
Heavy metal stress, 403
Heavy-metal tolerance, 477
Heterostyly, 135
Hexokinase, 425
Hyacinthoides non-scripta (bluebell), 619, 629
Hydraulic architecture, 125
Hyphal P transport, 611
Immunocytochemistry, 97
In vitro synthesis, 487
Interactions, 595
Intracellular penetration, 83
Invertase, 299, 417
Ion-selective microelectrodes, 523
Iron oxidation, 325
Isozyme variation, 147
Jack pine, 389
Kinetics, 477
^{14}C-labelling, 45
Leaf age, 355
Leaf anatomy, 595
Leaf carbon budgets, 557
Leaf growth, 253
Leaf senescence, 247
Leaf specific conductivity, 125
Leafy liverwort, 439
Lichen, 477
Life history, 629
Lignin analysis, 203
Lignin synthesis genes, 203
Lignins, 203
Liquidambar styraciflua (sweetgum), 63

Lolium perenne (rye-grass), 23
Low temperature, 637
Lowland rice, 325
Maize, 643
Meiotic anomalies, 1
Mesophyll, 403
Mg-dechelatase, 247
Mine reclamation, 651
Moss, 477
Mutualism, 371
Mycelial cords, 467
Mycorrhiza, 107, 411, 605
Nectar, 135
Needles, 537
Nitrogen, 83, 411, 547, 579, 595
Nitrogen availability, 253
Nitrogen pollution, 605
Nitrogen toxicity, 547
Nitrogenase activity, 337
Norway spruce, 265
Nutrient exchange, 425
Offspring vigour, 107
Open-top chambers, 355
Ozone, 23, 33, 45, 355, 587, 595
^{32}P, 611
Parasitism, 371
Patch-dependent reproduction, 155
Paxillus involutus, 487
^{33}P, 611
Peach flowers, 345
pH, 523
Phaeophorbide *a*, 237
Phaeophorbide dioxygenase, 247
Phosphatase, 425
Phosphate solubilization, 325
Phosphate status, 107
Phosphorus, 289, 411, 629
Phosphorus inflow, 619
Phosphorus response, 651
Photosynthesis, 587
Picea abies (Norway spruce), 33, 417, 505, 537
Pinaceae, 73
Pinus ponderosa (ponderosa pine), 547
Pinus taeda (loblolly pine), 547
Plant conservation, 147
Plant cuticle, 495
Plant–fungus interaction, 433
Plant growth, 83
Plantago major, 587
Plantanus occidentalis (American sycamore), 63
Pollination, 135, 155
Polygalacturonase, 345
Polyploidy, 1
Populus x euramericana, 253
Prairie grasses, 651
Primary root, 317
Primula scotica, 147
Provenances, 55
Puccinia lagenophorae (rust), 107
Quantitative image analysis, 449
Radiocaesium, 449
RAPDs, 147
Receptor, 167
Red oak, 265
Red spruce, 55
Resistance, 117
Rhizoid infection, 439
Rhizosphere, 325
Rhizosphere soil, 537
Root germination, 433
Root hairs, 523
Roots, 579
Rust, 117
Saprobic fungus, 309
Schizophyllum commune, 449
Second-order transition, 283
Secretion, 167
Seed set, 155
Senecio vulgaris, 107
Senescence, 33
Shared hosts, 439
Signal transduction, 167
Snow mould, 299
Soil bioassay, 73
Soil profile, 629
Stay-green genotype, 247
Stomatal conductance, 587
Succession, 389, 651
Synergism, 661
Telotylenchus ventralis, 661
Temperature, 289
Tip growth, 523
Tolerance, 117
Translocation, 289, 449, 467
Transpiration, 495
Trifolium repens (white clover), 23, 513
Triploid block, 1
Triticum aestivum (wheat), 637
Turnover, 579
Tussilago farfara, 117
Ultrastructure, 317
Vacuole, 403
VA-mycorrhiza, 317
Virulence, 371
Water relations, 643
Water sorption, 283
Water use efficiency, 275, 569
Wheat, 337, 557
Wildfire, 389
Winter injury, 33
Wood decay, 289, 467